



THE PREPAREDNESS REPORT

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SNS Crossword
puzzle on page 4!



Insight into the 2012 West Nile Virus Outbreak

A study conducted by The Texas Department of State Health Services, HSR 2/3 and Tarrant County Public Health published in the April 2015 edition of Emerging Infectious Diseases found that less than 2% of the Northern Texas population (which encompasses the four county region of Dallas, Denton, Tarrant and Collin) became infected by WNV during the 2012 outbreak. In addition, possible differences in infection by age and gender may have occurred. The percentage of Northern Texas residents that became infected was derived from models that utilized both neuroinvasive West Nile disease cases and viremic blood donors identified between April and November 2012.

The full publication can be found at: http://wwwnc.cdc.gov/eid/article/21/4/14-1178_article .

DSHS Host Mosquito Management Seminar

Brenda Hart
Community Preparedness



DSHS HSR 2/3 recently partnered with Municipal Mosquito to conduct the 2015 North Texas Mosquito Management Seminar. The workshop featured subject matter experts known nationally for their in depth knowledge of entomology, integrated pest management, pesticide application laws, and epidemiology of vector-borne illness.

Janet McAllister, Epidemiologist with the Centers for Disease Control, gave an

overview of Chikungunya Virus (CHIKV). CHIKV is an emerging vector-borne illness that has been identified in Asia, Africa, the Caribbean Islands, Mexico and Central America, prompting US officials to be on the lookout for imported cases. Students learned which mosquito vectors are known to carry CHIKV and how to target strategies for vector control. Later in the program, Dr. McAllister gave an update on arbovirus activity in Texas.

Claudia Riegal, Director of the Mosquito and Termite Control Board for the City of New Orleans, gave a unique municipal perspective on integrated CHIKV vector response. Her presentation highlighted the differences between Texas and Louisiana vector-control strategies. David Florin, Texas State Entomologist spoke about CHIKV surveillance and response from the Texas experience. Although we have not had any reported cases of locally-transmitted CHIKV, DSHS is very busy developing guidance for integrated management of mosquitoes. Surveillance for CHIKV will be reported by human cases instead of mosquito testing due to the relatively short incubation period.

Chris Fredregil, an entomologist with Harris County Public Health and Environmental Services gave a captivating presentation on trapping techniques and how to trap for the correct mosquito species based on your local surveillance data. Cindy Corley, Environmental Health Manager with the City of Garland, premiered an award winning video that Garland used last year to initiate their West Nile Prevention Education Campaign. The video featured City of Garland Environmental Health employees and their families in a "Bill Nye, the science guy" scenario that demonstrated how to avoid mosquito breeding in your yard.

Allison Cuellar and Perry Cervantes, Compliance Specialists with the Texas Department of Agriculture gave an overview of recent changes to pesticide application certification and compliance. The workshop ended with a presentation from Russ Jones, Epidemiologist with Tarrant County Health Department that summarized West Nile Virus activity in humans over the past few years.

Overall, the workshop was a huge success despite an impending snow storm. Evaluations after the event indicated that the audience found the speakers knowledgeable and the experience beneficial to their day-to-day vector control strategies. A special thank you goes out to all of our speakers and the behind-the-scenes employees that contributed to the success of the event!

Contagious Campus Coughing

David Retana, MPH
Epidemiology



During the beginning of February 2015, one active case of Tuberculosis (TB) was reported in a university student with great potential of exposure and infection to classmates. DSHS HSR 2/3 responded to this public health emergency by screening and testing the classmates, friends, family and professors of the index case. All the services of screening, testing, chest X-ray and any necessary treatment were provided free of charge.

Tuberculosis (TB) is caused by a bacteria called *mycobacterium tuberculosis*. The bacterium usually attacks the lungs but it may attack any part of the

body such as the kidney, spine and brain. TB bacterium can cause productive cough, coughing up blood and sputum, pain in the chest, weakness, weight loss, chills, fever, and excessive sweating during the night sleep. TB bacterium is spread through the air from one person to another when a person with TB disease of the lungs or throat coughs, sneezes, speaks or sings. People nearby can breathe in these bacteria and become infected. TB is not spread through day to day contact such as shaking someone's hand, sharing food or drink, touching bed linens or toilet seats, sharing toothbrushes, or kissing. Once a person is infected with the TB bacteria, the chance of developing TB disease is higher if the person has other medical conditions that weaken the immune system.

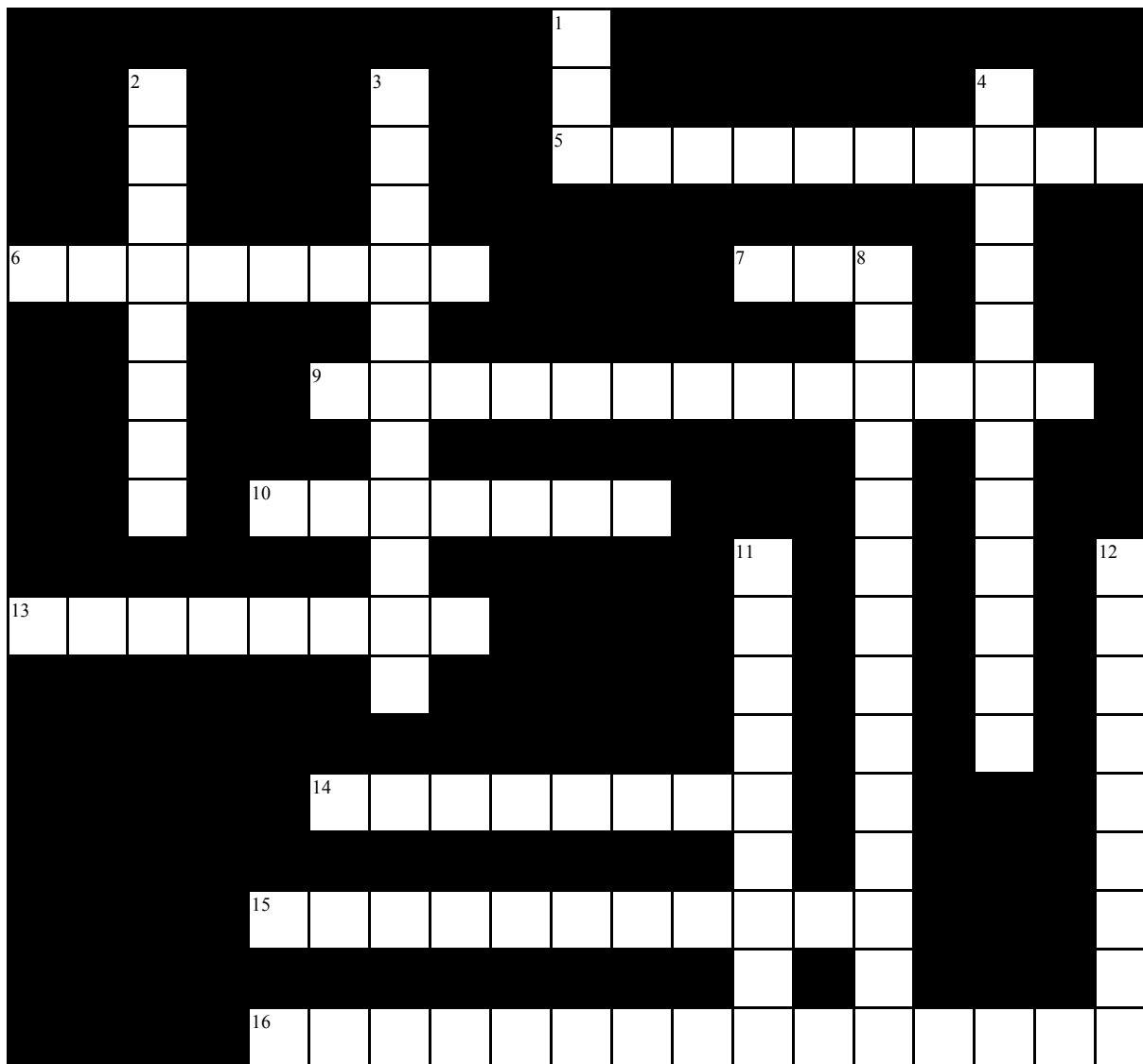
In late March, the investigation is still ongoing with ongoing efforts to screen, test and provide health services to all those exposed.

Preparedness Points:

- Preventive measures to identify any infected exposed contacts are vital to control spread of the highly contagious mycobacterium.
- Individuals identified with latent tuberculosis infection (LTBI) must complete the appropriate treatment to avoid a multidrug resistant strain of TB.
- Epidemiologists from different departments within an organization need to collaborate in a TB outbreak response to ensure contact tracing, testing, and treatment as needed.

SNS Crossword

Test your knowledge of SNS with this crossword puzzle



Across

Down

5. Putting "pills in people"
6. Local law enforcement provides this function during an SNS event.
7. Site that receives, stores and distributes medications to POD sites.
9. Antibiotic used during a mass prophylaxis event.
10. Category A threat agent.
13. This part of the SNS arrives within 12 hours
14. A _____ container is a cache of nerve agent antidotes placed in centralized locations to assist first responders to quickly administer life-saving antidotes and save lives.
15. Antibiotic used during a mass prophylaxis event.
16. Examples include vaccines and antibiotics.

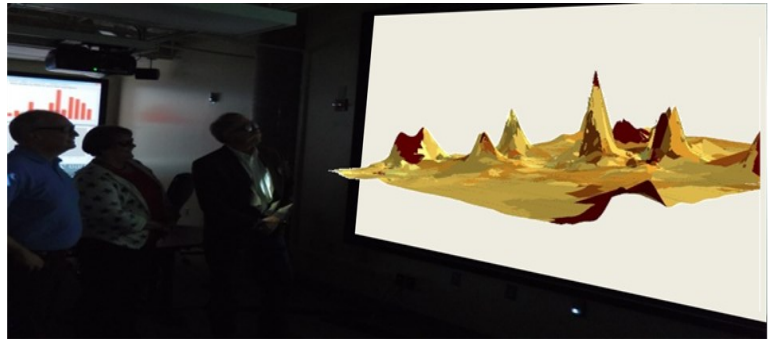
1. Facility where medications are dispensed to people.
2. These medical countermeasures are given by injection.
3. These are shipped to PODS and distributed to people in pill form.
4. One of the responsibilities of the RSS during an SNS event.
8. Group Responsible for securing the RSS site and accompanying shipments to local POD sites.
11. Strategic National _____
12. Used to test your plans and find gaps

Answer Key on page 6

Computational Epidemiology & Response Analysis

Lupe Torres
Community Preparedness

DSHS HSR 2/3 recently contracted with University of North Texas (UNT) Center for Computational Epidemiology and Response Analysis (CeCERA) to evaluate Point of Dispensing plans. A multidisciplinary research team at UNT is currently analyzing response plans for multiple counties in North Central Texas using their developed RE-PLAN Bio-E software. Some CRI Coordinators and community preparedness staff had an opportunity to see the data displayed at the CeCERA Simulation Chamber. It was an amazing 3D experience to see the POD locations and the surrounding areas, without having to be physically at the actual locations.



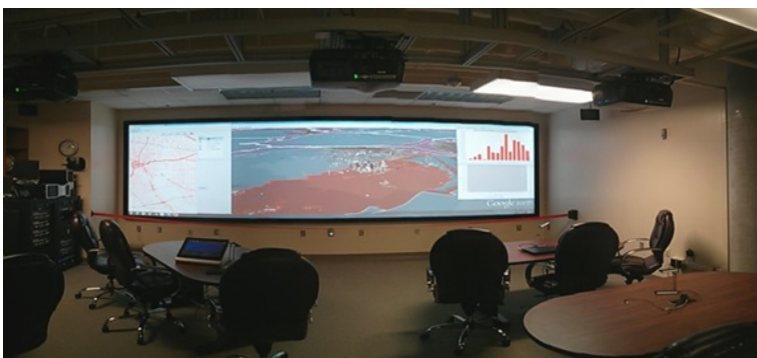
UNT requested the location of the POD sites and of alternate potential POD sites, as well as, the number of lanes/booths that each county selected for the project. The data provided and other data gathered from various sources, such as the U. S. Census Bureau and Texas Department of Transportation (TxDOT) is analyzed and compiled to provide each county with a report.

The Response Plan Analysis shows the catchment areas based on each county's current POD sites. It also provides the planner with a realistic picture of how many hours it would take to dispense countermeasures to their community. The report includes charts, maps, the rate each car would need to enter and exit a POD, the traffic road capacity and the higher population of a particular language in an area.

We have 48 hours to dispense medical countermeasures (MCM) to people in the region, so the Response Plan Analysis will clearly show planners if it can be accomplished using their current plans.

The software also allows the planner to enable the catchment areas in a county using equal population partitioning. Each county will have an opportunity to experience a visual of their county areas, so they can consider other locations as POD sites or increase the lanes/booths in each of their current POD sites to meet the 48 hour goal.

This project will ensure uniformity of planning and is a great tool to share with local leadership to help develop and change policies, as well as help guide the MCM planners with their volunteer recruitment efforts.



Terry LaFon, HSR 2/3 Preparedness Manager and the UNT CeCERA team will be presenting and demonstrating the project at the Preparedness Summit in April 2015 in Atlanta, Georgia. You can also see the demo at the upcoming SNS Symposium in Dallas scheduled for May 4-6, 2015. For registration go to; www.txmcsymposium.com.

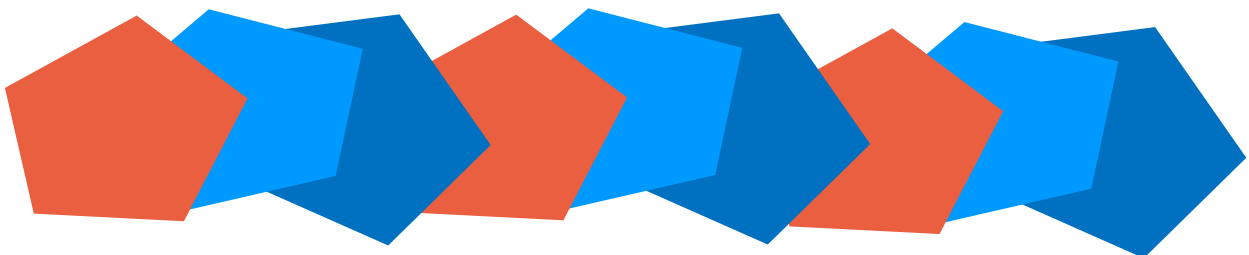
Answer Key

Across

- 5. Dispensing
- 6. Security
- 7. RSS
- 9. Ciprofloxacin
- 10. Anthrax.
- 13. Push Pack
- 14. Chempack
- 15. Doxycycline
- 16. Countermeasures

Down

- 1. POD
- 2. Vaccines
- 3. Antibiotics
- 4. Distribution
- 8. State Troopers
- 11. Stockpile
- 12. Exercises



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